DETAILED ACTION

1.   The following is a non-final, first office action on the merits. Claims 21-40 are pending.

Response to Amendment

2.   Applicant's preliminary amendments to the claims, filed August 17, 2005, are hereby

acknowledged. Claims 1-20 have been cancelled and claims 21-40 have been newly added.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

4.   Claims 25, 26, 30 and 34-37 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

5.   Claim 25 recites, "wherein performance units are divisible into subordinate planes and

wherein the data of the partial performance unit is completely coordinated with the performance

units of the superordinate plane and bidirectionally linked to them." This limitation is unclear,

and the Examiner is unable to discern the Applicant's intended meaning. Accordingly the

broadest reasonable interpretation has been utilized to examine the claims on the merits.

Clarification is required if the applicant intends some special meaning to be accorded to this

limitation.

6.   Claim 26 recites, "while retaining the links with the data of the super ordinate

performance units". This limitation is unclear, and the Examiner is unable to discern the

Applicant's intended meaning. Accordingly the broadest reasonable interpretation has been

utilized to examine the claims on the merits. Clarification is required if the applicant intends
some special meaning to be accorded to this limitation.

7.   Claim 30 recites, "wherein the partial performance units (TLE) defined as reference
quantities in the form of target status are taken over in an output format (AF) in the form of a
protocol, and the latter is imageable in the output medium (AM)." This limitation is unclear, and
the Examiner is unable to discern the Applicant's intended meaning. Accordingly the broadest
reasonable interpretation has been utilized to examine the claims on the merits. Clarification is
required if the applicant intends some special meaning to be accorded to this limitation.

8.   Claims 34-36 make reference to a control list. This limitation is unclear, and the
Examiner is unable to discern the Applicant's intended meaning. Accordingly the broadest
reasonable interpretation has been utilized to examine the claims on the merits. Clarification is
required if the applicant intends some special meaning to be accorded to this limitation.

9.   Claim 37 also utilizes a control list and additionally recites wherein the results of the
controlling of the target and actual status of the partial performance units (TLE) of the daily
reports are compared with those of the control lists (KL), and wherein the results are
documentable by way of the output medium (AM). This limitation is unclear, and the Examiner
is unable to discern the Applicant's intended meaning. Accordingly the broadest reasonable
interpretation has been utilized to examine the claims on the merits. Clarification is required if
the applicant intends some special meaning to be accorded to this limitation.

10.   Claim 40 recites results that bear a defined relationship to pre-formulated measures which
are represented in transaction corresponding This limitation is unclear, and the Examiner is
unable to discern the Applicant's intended meaning. Accordingly the broadest reasonable

interpretation has been utilized to examine the claims on the merits. Clarification is required if

the applicant intends some special meaning to be accorded to this limitation.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 21-40 are rejected under 35 U.S.C. 101 as being directed towards non-statutory

subject matter based on Supreme Court precedent, and recent Federal Circuit decisions, *In re*

Bilski U.S. Court of Appeals Federal Circuit 88 USPQ2d 1385. The machine-or-transformation

test is a two-branched inquiry; an applicant may show that a process claim satisfies § 101 either

by showing that his claim is tied to a particular machine, or by showing that his claim transforms

an article. See Benson, 409 U.S. at 70. Certain considerations are applicable to analysis under

either branch. First, as illustrated by Benson and discussed below, the use of a specific machine

or transformation of an article must impose meaningful limits on the claim's scope to impart

patent-eligibility. See Benson, 409 U.S. at 71-72. Second, the involvement of the machine or

transformation in the claimed process must not merely be insignificant extra-solution activity.

See Flook, 437 U.S. at 590.

13. The methods recited in claims 21-40 are neither tied to a machine nor do they transform

the underlying subject matter to a different state or thing. See Diamond v. Diehr, 450 U.S. 175,

184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); and Gottschalk v. Benson, 409 U.S.

63, 71 (1972).

14.   A method/process claim that fails to meet one of the above requirements is not in

compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter.

Here claims 21-40 fail to meet the above requirements because they are not tied to a particular

machine nor do they transform the underlying subject matter to a different state or thing. Since

the Applicant's method steps fail both prongs of the new Federal Circuit decision, claims 21-40

are non-statutory.

15.   When amending claims 21-40, Applicant is reminded that nominal recitations of structure

in an otherwise ineligible method fail to make the method a statutory process. See Benson, 409

U.S. at 71-72. As Comiskey recognized, "the mere use of the machine to collect data necessary

for application of the mental process may not make the claim patentable subject matter."

Comiskey, 499 F.3d at 1380 (citing In re Grams, 888 F.2d 835, 839-40 (Fed. Cir.1989)).

Incidental physical limitations, such as data gathering, field of use limitations, and post-solution

activity are not enough to convert an abstract idea into a statutory process. In other words,

nominal or token recitations of structure in a method claim do not convert an otherwise ineligible

claim into an eligible one. The Examiner respectfully suggests incorporating claim language that

clearly recites the structure necessary for performing the Applicant's claimed method without

adding new matter to the claims. For example, terms like processor, memory etc. could be

explicitly tied to the method steps, so long as such terms are supported by the specification, to

better help the claims comply with the statute.

Claim Rejections - 35 USC § 103

16.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

17.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

> 1.   Determining the scope and contents of the prior art.
> 2.   Ascertaining the differences between the prior art and the claims at issue.
> 3.   Resolving the level of ordinary skill in the pertinent art.
> 4.   Considering objective evidence present in the application indicating obviousness
>   or nonobviousness.

18.   Claims 21-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangachari

et al. (US Patent 6470227 B1) – hereinafter Rangachari, in view of Kall et al. (US PGPUB

20030149608 A1) – hereinafter Kall.

        Regarding **claim 21**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions

which are updateable (see at least cols. 6-9 which disclose a system for automating a set of

microelectronic manufacturing processes, and col. 9, lines 12-32 which disclose that this

automation is achieved by allowing users to define workflows that represent series of

manufacturing steps), wherein the control of the manufacturing processes can be continued over

an arbitrary number of performance phases (col. 9, lines 34-45 wherein the activity clients 108

may execute one or more activities 106 when a workflow engine 19 (FIG. 1) delegates the

activity 106. The execution of each of these separate activity workflows is equivalent to the

management of the manufacturing process over an arbitrary number of phases), the method

comprising the steps of:

- using a data processing system equipped with at least one storage unit and associated input and output units (see at least cols. 6-8 which describe the data processing system which implements the invention), in which the performance descriptions are deposited in at least one data bank (see cols. 6-7 wherein the user defined workflows are a part of the equipment manager and stored across the various computer systems which comprise the invention);

- depositing the performance descriptions in a data format in which data is organized data set by data set according to performance items (PV) (see at least col. 9, lines 12-32 wherein separate workflow objects are created to represent separate activities and are stored within the workflow layer of the system. This is equivalent to organizing data by data set according to the activities performed by each workflow object);

- on the basis of this data format, representing and processing the performance descriptions in various input and output formats in the input and output units (see at least col. 9 wherein the workflow layer allows users to define a plurality workflow activities and the activity layer represents these workflows on a GUI and executes the workflows);

- depositing the updateable performance descriptions in at least one data bank in a standardized data format in which data is organized data set by data set according to performance units (LE, 1 to n) (see at least cols. 9-11 wherein the user defines, and the system stores, a series of workflows that outline the performance of specific activities by different automated machines, or performance units. Column 11 goes on to describe an example where when an event occurs, such as a cassette arrival, a

workflow 102 is triggered and workflow 102 is executed. The workflow engine 19

executes each activity 106 in a sequential manner as defined by the routers 104. The

workflow engine 19 is an object that executes workflows defined by a user. Thus,

once a user has configured the application objects and implemented the workflow, the

automation system is able to handle the semiconductor manufacturing process which

comprises a series of activities executed by a plurality of automated machines, or

performance units), wherein each performance unit (LE) comprises at least one data

bank reference (such as works, time, place and resource, and production) that is in a

specific interrelationship with the data banks in the data format by performance unit

(LE) so that the data of the performance items (LV) are subdivisible into subsets of an

arbitrary number of performance units (LE) and so that the data of the performance

items (LV) are completely coordinated with said performance units (LE) and

bidirectionally linked with the same (see at least cols. 9-11 wherein workflows

representing performance items to be executed are stored and linked to the particular

automated machines intended to execute the workflow in question. The workflow

layer is therefore sub divisible into subsets of workflows to be performed by

particular performance units), wherein the number of performance units (LE) are

variable according to the progress of the performance phases with retention of the

links with the data of the performance items (LV) (see col. 10, line 43 – col. 11, line

20 wherein the progress of each workflow is monitored and after a workflow is

completed its state is changed and the system moves to the next activity. If future

activities do not require the usage of a particular machine/performance unit then that

machine will effectively be removed from the sequence of activities and the number

of performance units will change since one less performance unit/machine will be

involved. Moreover, the reference teaches that the user defines the

workflow/manufacturing process that will be implemented using the system and

therefore the user is given the ability to vary the number of workflows and

performance units that will be executed. Col. 12 also discloses that the system is

supported by an extensive library of completed equipment interfaces, workflows and

activities which means that the various data generated by the system is retained in

memory), and wherein the performance descriptions (LB) are processable and

representable on the basis of the data format by performance units (LE) in the various

input and output formats of the input and output units of the data processing system

(DVA) (see at least col. 9 wherein the workflow layer allows users to define a

plurality workflow activities and the activity layer represents these workflows

individually on a GU).

Rangachari however does not explicitly teach wherein the representing and processing comprises

formulating the updateable performance descriptions a second time and depositing these

descriptions in an additional database.

Kall however, discloses a manufacturing executive and workflow management system

Wherein the user is given the ability to define certain workflows using a business process

modeler (see ¶ [0097]) and is also provided the ability to formulate the updateable performance

descriptions a second time and deposit these descriptions in an additional database

(see ¶ [0107] wherein the user is allowed to modify the predefined workflows for special orders

that require special instructions/activities. These special instructions are appended to the

workflow data for the items in question so that the unit performing the workflow knows to

perform the special instructions).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a

patent based on the combination of elements found in the prior art," and discussed circumstances

in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed

principles based on its precedent that "[t]he combination of familiar elements according to

known methods is likely to be obvious when it does no more than yield predictable results." In

this case the combination of the automated manufacturing process disclosed by Rangachari and

the manufacturing executive and workflow management system disclosed by Kall would yield a

predictable result, specifically a method of automating and managing a plurality of

manufacturing workflows wherein the user is given the ability to define certain workflows in the

manner disclosed by Rangachari, and is also provided the ability to formulate the updateable

performance descriptions a second time and deposit these descriptions in an additional database,

in the manner disclosed by Kall. It would have been obvious to one of ordinary skill in the art to

modify the method of Rangachari to include the functionality disclosed by Kall because the

claimed invention is merely a combination of old elements, and in the combination each element

merely would have performed the same function as it did separately. Furthermore one of

ordinary skill in the art would have recognized that the results of the combination were

predictable, therefore the combination has been deemed obvious. Additionally both methods are

directed towards the definition and management of manufacturing processes, therefore they are

analogous art.

Regarding **claim 22**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions, the

method further comprising hierarchically grouping an arbitrarily variable number of performance

units (LE), wherein the data of the performance items (LV) of an altered number of performance

units (LE) are completely coordinated and linked to the latter bidirectionally (see col. 11 wherein

The workflow engine 19 executes each activity 106 in a sequential manner as defined by the

routers 104. Therefore the system allows users to define the sequence or hierarchy of

tasks/workflows that occur in the manufacturing process).

Regarding **claim 23**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the content and scope of the performance units (LE) is arbitrarily variable, and wherein

the data of the performance items (LV) is completely coordinated with the altered performance

units (LE) and bidirectionally linked to them (see at least col. 13 and fig 4. wherein the workflow

development tool is disclosed that allows users to modify the content and scope of the activities

that will be performed by a particular performance unit.)

Regarding **claim 24**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the content, scope and subdivision of the data of the performance items (LV) is variable

in partial performance units (TLE), and wherein the altered data of the performance items (LV)

is completely coordinated with the existing performance units (LE) and bidirectionally linked to them (see at least col. 13 and fig 4. wherein the workflow development tool is disclosed that allows users to modify the content and scope of the activities that will be performed by a particular performance unit. Therefore the total sequence of activities required to produce say a microchip, is subdivided into smaller workflows which represent the performance of partial pieces of the total activities required, and are grouped and presented by the individual machines that perform each of the specific activities in question.).

Regarding **claim 26**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, wherein the content, scope and subdivision of the data of the performance items (LV) is variable in partial performance units (TLE) (see at least col. 13 and fig 4. wherein the workflow development tool is disclosed that allows users to modify the content and scope of the activities that will be performed by a particular performance unit. Therefore the total sequence of activities required to produce say a microchip, is subdivided into smaller workflows which represent the performance of partial pieces of the total activities required, and are grouped and presented by the individual machines that perform each of the specific activities in question); but does not explicitly teach wherein the content and scope of the partial performance units (TLE) is arbitrarily variable while retaining the links with the data of the superordinate performance units (LE).

Kall however does indeed disclose wherein the content and scope of the partial performance units (TLE) is arbitrarily variable while retaining the links with the data of the superordinate performance units (LE) (see at least ¶ [0097] wherein users can utilize the business

process modeler to vary the content and scope of the units performing certain sequences within a particular workflow and fig 38 illustrates that links to the data of superordinate performance units are provided via the user interface.

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," and discussed circumstances in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." In this case the combination of the automated manufacturing process disclosed by Rangachari and the manufacturing executive and workflow management system disclosed by Kall would yield a predictable result, specifically a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, and is also provided the ability to vary the content and scope of the units performing certain sequences within a particular workflow while retaining links to the data of superordinate performance units, in the manner disclosed by Kall. It would have been obvious to one of ordinary skill in the art to modify the method of Rangachari to include the functionality disclosed by Kall because the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately. Furthermore one of ordinary skill in the art would have recognized that the results of the combination were predictable, therefore the combination has been deemed obvious. Additionally both methods are directed towards the definition and management of manufacturing processes, therefore they are analogous art

Regarding **claim 27**, Rangachari discloses a method for controlling of several temporally
and spatially interlocking manufacturing processes on the basis of performance descriptions, but
does not explicitly teach in exact words that the partial performance units are modifiable
according to performance phases in their data bank reference.

Kall however discloses a method of managing manufacturing workflows wherein the
partial performance units are modifiable according to performance phases in their data bank
reference (see ¶ [0101] wherein the model is broken down into phases and the workflows
assigned to partial units are modifiable depending on the phases in question).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a
patent based on the combination of elements found in the prior art," and discussed circumstances
in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed
principles based on its precedent that "[t]he combination of familiar elements according to
known methods is likely to be obvious when it does no more than yield predictable results." In
this case the combination of the automated manufacturing process disclosed by Rangachari and
the manufacturing executive and workflow management system disclosed by Kall would yield a
predictable result, specifically a method of automating and managing a plurality of
manufacturing workflows wherein the user is given the ability to define certain workflows in the
manner disclosed by Rangachari, wherein the partial performance units are modifiable according
to performance phases, in the manner disclosed by Kall. It would have been obvious to one of
ordinary skill in the art to modify the method of Rangachari to include the functionality disclosed
by Kall because the claimed invention is merely a combination of old elements, and in the
combination each element merely would have performed the same function as it did separately.

Furthermore one of ordinary skill in the art would have recognized that the results of the

combination were predictable, therefore the combination has been deemed obvious. Additionally

both methods are directed towards the definition and management of manufacturing processes,

therefore they are analogous art.

Regarding **claim 28**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the partial performance units (TLE) is adopted in an output format (AF) in the form of a

pre-protocol (VP), and wherein the output format (AF) is imageable in an output medium (AM)

(see at least col. 13 and fig 4. wherein the workflow development tool is disclosed that allows

users to modify the content and scope of the activities that will be performed by a particular

performance unit. Therefore the total sequence of activities required to produce say a microchip,

is subdivided into smaller workflows which each represent the performance of partial pieces of

the total activities required, and are grouped and presented according to the individual machines

that perform each of the specific activities in question. Furthermore cols. 15-16 disclose outplay

and display devices that display the various data including partial workflows and the units that

perform them).

Regarding **claim 29**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the partial performance units (TLE) of the pre-protocol (VP) are defined as reference

quantities in the form of a target status (see col. 11, lines 1-3 wherein the status of a partial

performance unit, or workflow, must meet a target status - in this case the complete status, for

the next workflow to execute).

Regarding **claim 30**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the partial performance units (TLE) defined as reference quantities in the form of target

status are taken over in an output format (AF) in the form of a protocol, and the latter is

imageable in the output medium (AM) (see col. 11, lines 1-3 wherein the status of a partial

performance unit, or workflow, must meet a target status - in this case the complete status, for

the next workflow to execute. Col. 12 also discloses that the system further provides a user the

ability to review workflow related status information through a data network such as the Internet

or an Intranet).

Regarding **claim 33**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the partial performance units (TLE) of the pre-protocol (VP) are defined as reference

quantities in the form of a target status, and the partial performance units (TLE) defined as

reference quantities in form of target status are analytically comparable to the data of the

reported performances in the data banks (DB) and the results are documentable by way of the

output medium (AM) (see col. 11, lines 1-3 wherein the status of a partial performance unit, or

workflow, must meet a target status - in this case the complete status, for the next workflow to

execute. This partial performance unit data, including target status information, is both

comparable and documentable.)

Regarding **claim 34**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein the reference quantities defining the partial performance units (TLE) in form of target

status are taken over with the data of the reported performances in an output format (AF) in the

form of a control list (KL) and the latter is imageable in the output medium (AM) (see col. 11,

lines 1-3 wherein the status of a partial performance unit, or workflow, must meet a target status

- in this case the complete status, for the next workflow to execute. Col. 12 also discloses that the

system further provides a user the ability to review workflow related status information through a

data network such as the Internet or an Intranet. Therefore the status of the workflows acts as a

control list that controls operation of the method).

It is also noted that, Kall discloses the generation of various reports related to the

workflows and manufacturing processes being modeled (See ¶ [0111] and fig 15.) wherein the

reports are supplemented with data of the reported performances (See ¶ [0014]).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a

patent based on the combination of elements found in the prior art," and discussed circumstances

in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed

principles based on its precedent that "[t]he combination of familiar elements according to

known methods is likely to be obvious when it does no more than yield predictable results." In

this case the combination of the automated manufacturing process disclosed by Rangachari and

the manufacturing executive and workflow management system disclosed by Kall would yield a

predictable result, specifically a method of automating and managing a plurality of

manufacturing workflows wherein the user is given the ability to define certain workflows in the

manner disclosed by Rangachari, wherein various reports are generated in the manner disclosed

by Kall. It would have been obvious to one of ordinary skill in the art to modify the method of

Rangachari to include the functionality disclosed by Kall because the claimed invention is

merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately. Furthermore one of ordinary skill in the art would have recognized that the results of the combination were predictable, therefore the combination has been deemed obvious. Additionally both methods are directed towards the definition and management of manufacturing processes, therefore they are analogous art.

Regarding **claim 35**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, wherein the control list is supplemented within the input unit with data defined as actual status of the actual performances (see col. 11, lines 1-3 wherein the status of a partial performance unit, or workflow, must meet a target status - in this case the complete status, for the next workflow to execute. Col. 12 also discloses that the system further provides a user the ability to review workflow related status information through a data network such as the Internet or an Intranet).

Regarding **claim 36**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, wherein control of the performances of the executant takes place analytically by means of the target and actual status of the partial performance units (TLE) in the control lists (KL) in the data banks (DB), and wherein the results are documentable by means of the output medium (AM) (see col. 11, lines 1-3 wherein the status of a partial performance unit, or workflow, must meet a target status - in this case the complete status, for the next workflow to execute. Col. 12 also discloses that the system further provides a user the ability to review workflow related status information through a data network such as the Internet or an Intranet).

19.   Claims 25, 31-32 and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Rangachari (US Patent 6470227 B1), in view of Kall (US PGPUB 20030149608 A1) and

further in view of Examiner's Official Notice.

        Regarding **claim 25**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions,

wherein according to the performance phases, the performance units (LE) are divisible into

partial performance units (TLE), and wherein the data of the partial performance units (TLE) is

completely coordinated with the performance units (LE) of the superordinate plane and

bidirectionally linked to them (see at least col. 13 and fig 4. wherein the workflow development

tool is disclosed that allows users to modify the content and scope of the activities that will be

performed by a particular performance unit. Therefore the total sequence of activities required to

produce say a microchip, is subdivided into smaller workflows which each represent the

performance of partial pieces of the total activities required, and are grouped and presented

according to the individual machines that perform each of the specific activities in question.)

        Rangachari does not explicitly teach that the performance units divisible into partial

performance units (TLE) are explicitly represented as a subordinate plane. However the

Examiner, hereby takes official notice that representing data in a plane was well known to those

of ordinary skill in the art, at the time of the invention.

        Following KSR, the Supreme Court issued several rationales for supporting a conclusion

that a claim would have been obvious. If a particular known technique was recognized as part of

the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have

been capable of applying this known technique to a known device (method, or product) and the results would have been predictable to one of ordinary skill in the art; then the claim will be deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case representing data in a plane as was well known to do at the time of the invention, to a known device, in this case to the partial performance units disclosed by the aforementioned combination of Rangachari and Kall. The application of the known technique in this manner would have generated a predictable result. It would have been obvious, to one of ordinary skill in the art, that the result of applying the aforementioned technique would be a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, the performance units are divisible into partial performance units and represented on a plane. Therefore since the Applicant is claiming the application of a known technique to a known device to yield a predictable result, the claim is deemed obvious in view of the prior art.

It is additionally noted that Kall also discloses that the performance units are divisible into partial performance units (TLE) (see fig 38 which illustrates a gantt chart where the performance unit assigned to Personal Kare Production is subdivided into partial performance units that execute tasks represented by Preweigh2, Kettle 2, Kettle 1, Bottlefiller etc.). It has already been established that it would have been obvious to combine these two references, see the rejection of claim 21.

Regarding **claim 31**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, but does not explicitly teach in exact words wherein the partial performance units (TLE) defined as

reference quantities in the form of target status are taken over in an output format (AF) in the

form of daily reports (TM) and the latter are imageable in the output medium (AM).

Kall discloses the generation of various reports related to the workflows and

manufacturing processes being modeled (See ¶ [0111] and fig 15.).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a

patent based on the combination of elements found in the prior art," and discussed circumstances

in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed

principles based on its precedent that "[t]he combination of familiar elements according to

known methods is likely to be obvious when it does no more than yield predictable results." In

this case the combination of the automated manufacturing process disclosed by Rangachari and

the manufacturing executive and workflow management system disclosed by Kall would yield a

predictable result, specifically a method of automating and managing a plurality of

manufacturing workflows wherein the user is given the ability to define certain workflows in the

manner disclosed by Rangachari, wherein various reports are generated in the manner disclosed

by Kall. It would have been obvious to one of ordinary skill in the art to modify the method of

Rangachari to include the functionality disclosed by Kall because the claimed invention is

merely a combination of old elements, and in the combination each element merely would have

performed the same function as it did separately. Furthermore one of ordinary skill in the art

would have recognized that the results of the combination were predictable, therefore the

combination has been deemed obvious. Additionally both methods are directed towards the

definition and management of manufacturing processes, therefore they are analogous art.

Finally, while Kall discloses the generation of reports the prior art does not explicitly

teach in exact words that these reports are generated daily. However the Examiner hereby takes

official notice that generating reports daily was well known to those of ordinary skill in the art, at

the time of the invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion

that a claim would have been obvious. If a particular known technique was recognized as part of

the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have

been capable of applying this known technique to a known device (method, or product) and the

results would have been predictable to one of ordinary skill in the art; then the claim will be

deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case generating reports daily as was well

known to do at the time of the invention, to a known device, in this case to the reports generated

by the combination of Rangachari and Kall. The application of the known technique in this

manner would have generated a predictable result. It would have been obvious, to one of

ordinary skill in the art, that the result of applying the aforementioned technique would be a

method of automating and managing a plurality of manufacturing workflows wherein the user is

given the ability to define certain workflows in the manner disclosed by Rangachari, wherein

various reports are generated daily. Therefore since the Applicant is claiming the application of a

known technique to a known device to yield a predictable result, the claim is deemed obvious in

view of the prior art.

Regarding **claim 32**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions, but

does not explicitly teach in exact words wherein the partial performance units (TLE) defined as
reference quantities in the form of target status are taken over in an output format (AF) in the
form of daily reports (TM) and the latter are imageable in the output medium (AM), and the
daily reports are supplemented within the input unit with data of the reported performances.

Kall discloses the generation of various reports related to the workflows and
manufacturing processes being modeled (See ¶ [0111] and fig 15.) wherein the reports are
supplemented with data of the reported performances (See ¶ [0014]).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a
patent based on the combination of elements found in the prior art," and discussed circumstances
in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed
principles based on its precedent that "[t]he combination of familiar elements according to
known methods is likely to be obvious when it does no more than yield predictable results." In
this case the combination of the automated manufacturing process disclosed by Rangachari and
the manufacturing executive and workflow management system disclosed by Kall would yield a
predictable result, specifically a method of automating and managing a plurality of
manufacturing workflows wherein the user is given the ability to define certain workflows in the
manner disclosed by Rangachari, wherein various reports are generated in the manner disclosed
by Kall. It would have been obvious to one of ordinary skill in the art to modify the method of
Rangachari to include the functionality disclosed by Kall because the claimed invention is
merely a combination of old elements, and in the combination each element merely would have
performed the same function as it did separately. Furthermore one of ordinary skill in the art
would have recognized that the results of the combination were predictable, therefore the

combination has been deemed obvious. Additionally both methods are directed towards the definition and management of manufacturing processes, therefore they are analogous art.

Finally, while Kall discloses the generation of reports the prior art does not explicitly teach in exact words that these reports are generated daily. However the Examiner hereby takes official notice that generating reports daily was well known to those of ordinary skill in the art, at the time of the invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion that a claim would have been obvious. If a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have been capable of applying this known technique to a known device (method, or product) and the results would have been predictable to one of ordinary skill in the art; then the claim will be deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case generating reports daily as was well known to do at the time of the invention, to a known device, in this case to the reports generated by the combination of Rangachari and Kall. The application of the known technique in this manner would have generated a predictable result. It would have been obvious, to one of ordinary skill in the art, that the result of applying the aforementioned technique would be a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, wherein various reports are generated daily. Therefore since the Applicant is claiming the application of a known technique to a known device to yield a predictable result, the claim is deemed obvious in view of the prior art.

Regarding **claim 37**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, but does not explicitly teach in exact words wherein the partial performance units (TLE) defined as reference quantities in the form of target status are taken over in an output format (AF) in the form of daily reports (TM) and the latter are imageable in the output medium (AM), and the daily reports are supplemented within the input unit with data of the reported performances.

Kall discloses the generation of various reports related to the workflows and manufacturing processes being modeled (See ¶ [0111] and fig 15.) wherein the reports are supplemented with data of the reported performances (See ¶ [0014]).

In KSR, the Supreme Court particularly emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," and discussed circumstances in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." In this case the combination of the automated manufacturing process disclosed by Rangachari and the manufacturing executive and workflow management system disclosed by Kall would yield a predictable result, specifically a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, wherein various reports are generated in the manner disclosed by Kall. It would have been obvious to one of ordinary skill in the art to modify the method of Rangachari to include the functionality disclosed by Kall because the claimed invention is merely a combination of old elements, and in the combination each element merely would have

performed the same function as it did separately. Furthermore one of ordinary skill in the art

would have recognized that the results of the combination were predictable, therefore the

combination has been deemed obvious. Additionally both methods are directed towards the

definition and management of manufacturing processes, therefore they are analogous art.

Additionally, while Kall discloses the generation of reports the prior art does not

explicitly teach in exact words that these reports are generated daily. However the Examiner

hereby takes official notice that generating reports daily was well known to those of ordinary

skill in the art, at the time of the invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion

that a claim would have been obvious. If a particular known technique was recognized as part of

the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have

been capable of applying this known technique to a known device (method, or product) and the

results would have been predictable to one of ordinary skill in the art; then the claim will be

deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case generating reports daily as was well

known to do at the time of the invention, to a known device, in this case to the reports generated

by the combination of Rangachari and Kall. The application of the known technique in this

manner would have generated a predictable result. It would have been obvious, to one of

ordinary skill in the art, that the result of applying the aforementioned technique would be a

method of automating and managing a plurality of manufacturing workflows wherein the user is

given the ability to define certain workflows in the manner disclosed by Rangachari, wherein

various reports are generated daily. Therefore since the Applicant is claiming the application of a

known technique to a known device to yield a predictable result, the claim is deemed obvious in view of the prior art.

Finally, neither reference discloses comparing the results of the reports to other data, or a control list, wherein the results are documentable by way of the output medium. The examiner hereby takes Official Notice that comparing reports to other collections of data and documenting the results of the comparison using some output medium, was a technique well known to those of ordinary skill in the art, at the time of the invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion that a claim would have been obvious. If a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have been capable of applying this known technique to a known device (method, or product) and the results would have been predictable to one of ordinary skill in the art; then the claim will be deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case comparing reports to other collections of data and documenting the results of the comparison using some output medium as was well known to do at the time of the invention, to a known device, in this case to the reports generated by the combination of Rangachari and Kall. The application of the known technique in this manner would have generated a predictable result. It would have been obvious, to one of ordinary skill in the art, that the result of applying the aforementioned technique would be a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, wherein various reports are generated daily and compared to other data to generate certain results which

can be output using the various output devices. Therefore since the Applicant is claiming the

application of a known technique to a known device to yield a predictable result, the claim is

deemed obvious in view of the prior art.

Regarding **claim 38**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions, but

does not explicitly teach wherein by way of a data feedback (DRB) from the target and actual

status of the partial performance units (TLE) to the items of the contractual performances with

their prices, the state of fulfillment of the contractual performances and the chargeable costs in

each performance phase are determined and documented by way of the output medium (AM).

The Examiner hereby takes official notice that documenting contractual performances

with their prices, the state of fulfillment of the contractual performances and the chargeable costs

in each performance phase, was well known to those of ordinary skill in the art, at the time of the

invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion

that a claim would have been obvious. If a particular known technique was recognized as part of

the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have

been capable of applying this known technique to a known device (method, or product) and the

results would have been predictable to one of ordinary skill in the art; then the claim will be

deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case documenting contractual

performances with their prices, the state of fulfillment of the contractual performances and the

chargeable costs in each performance phase as was well known to do at the time of the invention,

to a known device, in this case to the reports generated by the combination of Rangachari and

Kall. The application of the known technique in this manner would have generated a predictable

result. It would have been obvious, to one of ordinary skill in the art, that the result of applying

the aforementioned technique would be a method of automating and managing a plurality of

manufacturing workflows wherein the user is given the ability to define certain workflows in the

manner disclosed by Rangachari, wherein various reports are generated daily including reports

documenting contractual performances with their prices, the state of fulfillment of the

contractual performances and the chargeable costs in each performance phase. Therefore since

the Applicant is claiming the application of a known technique to a known device to yield a

predictable result, the claim is deemed obvious in view of the prior art.

Regarding **claim 39**, Rangachari discloses a method for controlling of several temporally

and spatially interlocking manufacturing processes on the basis of performance descriptions, but

does not explicitly teach wherein the accountings for fulfilled contractual performances of the

executants are detected as costs through the input unit (E), and compared in data feedback (DRB)

with the costs to be settled, and the results are documentable by way of the output medium

(AM).

The Examiner hereby takes official notice that documenting accountings for fulfilled

contractual performances by detecting various costs data using an input unit and comparing them

to settlement costs, was well known to those of ordinary skill in the art, at the time of the

invention.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion

that a claim would have been obvious. If a particular known technique was recognized as part of

the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have been capable of applying this known technique to a known device (method, or product) and the results would have been predictable to one of ordinary skill in the art; then the claim will be deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case documenting accountings for fulfilled contractual performances by detecting various costs data using an input unit and comparing them to settlement costs as was well known to do at the time of the invention, to a known device, in this case to the reports generated by the combination of Rangachari and Kall. The application of the known technique in this manner would have generated a predictable result. It would have been obvious, to one of ordinary skill in the art, that the result of applying the aforementioned technique would be a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, wherein various reports are generated daily including reports documenting accountings for fulfilled contractual performances by detecting various costs data using an input unit and comparing them to settlement costs. Therefore since the Applicant is claiming the application of a known technique to a known device to yield a predictable result, the claim is deemed obvious in view of the prior art.

Regarding **claim 40**, Rangachari discloses a method for controlling of several temporally and spatially interlocking manufacturing processes on the basis of performance descriptions, but does not explicitly teach wherein the results in the data banks (DB) bear a defined relationship to pre-formulated measures, and the latter are represented on the output medium (AM) in transaction-corresponding form.

The Examiner hereby takes official notice that it was well known to those of ordinary skill in the art at the time of the invention, for results in data banks to bear a defined relationship to pre-formulated measures and to represent data in transaction-corresponding form via an output medium. For example, when processing online transactions it was well known to represent each transaction by identifying the transaction type, amount etc.

Following KSR, the Supreme Court issued several rationales for supporting a conclusion that a claim would have been obvious. If a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art, and one of ordinary skill in the art would have been capable of applying this known technique to a known device (method, or product) and the results would have been predictable to one of ordinary skill in the art; then the claim will be deemed obvious in view of the prior art.

Applicant is applying a known technique, in this case representing results data, that bear a defined relationship to pre-formulated measures, in transaction-corresponding form as was well known to do at the time of the invention, to a known device, in this case to the results generated by the combination of Rangachari and Kall. The application of the known technique in this manner would have generated a predictable result. It would have been obvious, to one of ordinary skill in the art, that the result of applying the aforementioned technique would be a method of automating and managing a plurality of manufacturing workflows wherein the user is given the ability to define certain workflows in the manner disclosed by Rangachari, and wherein various reports are generated daily including the results of the aforementioned workflows such that these results bear a defined relationship to pre-formulated measures and are represented in transaction-corresponding form. Therefore since the Applicant is claiming the application of a

known technique to a known device to yield a predictable result, the claim is deemed obvious in

view of the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Adrian J. McPhillip whose telephone number is (571)270-5399.

The examiner can normally be reached on Monday to Thursday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Beth Boswell can be reached on (571)272-6737. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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/A. J. M./
Examiner, Art Unit 3623

3/27/2010

/Beth V. Boswell/
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